

12-10 1900 J. Toeller Key/Holder 2230

1900 Peter Mauger 8:47

Lee Mauger 8:47

Dave Mauger 8:47

12-10 1920 NED GUYETTE

- ~~Chad~~ ~~Andrius~~ 8:15 - 11:00

Ron Fintak 8:30 - 10:30

12-11 Tom Schmitt 645 1000

John A 7:10P → 9:15

12-17 1/2 day Targrey 7:30 PM 8:45 - 1 PM

1/2 day holder

Furnace pan very noisy

Peter Mauger 7:40 8:45

ROB REISNER

12-20 F. ROLDAN 15:50-16:05

PICK UP REACTION TIME & 1 STOP  
WATCH FOR TALK IN ROCKFORD, ILL.  
INSTALLED PULL CHAIN ON  
OFFICE LIGHT

12-23 6:50 John - 7:00P Watched LRS + 10 transit  
and shadow

Dec 28 ~~Sam~~ 17:00-22:30 7 EB MINIMA  
Seeing ~ 3-6 clouds moving in!

SHADOW TRANSIT - JUPITER

Dec 29 F. ROLDAN 11:50-12:00 RETURNED REACTION TIME & STOP WATCH TOOK BULL HORN  
DELIVERED 1989 REG. &  
PLEIADES OCCULTATION PREDICTIONS

1989

1-2-89 F. ROLDAN 13:45-15:30 RETURNED BULL HORN  
WORKING OF FURNACE

1-3-89 L. Zech Returning books; Taking 1 finder to use to  
find a better mounting method onto Portoscopes.  
4:47 PM NOTE: Could not get Portoscope room  
lights or red lights in "A" to work!

JAN 4 89 ~~Sam~~ 19:15-22:20  
A. Whelan 19:30

John A 7:30

Sally W. 19:40-21:20

F. ROLDAN 19:30-21:00

COMPLETED FURNACE

Jana Lick 20:00-21:30  
PAUL 1429 7:00



Jan. 7 10:00-12:00 Sally W.  
10:45-11:30 Paul Hess

8 Jan 12:30 Dan Kueker  
took all of the slides & one carousel  
for talk I'm giving on Jan 11.

Jan 11 13:40-13:50 Sally W.

Jan 12

Smiff 17:15-24:00 14 minima 205 OBS.

Paul Bachado 5:55 PM - 8:30 PM 3 STO. OCCULTATIONS

Smiff 17:20-2:00 14 minima 264 OBS.

TOOK P SCOPE MOUNT #3 HOME FOR REPAIR

FOUND GARAGE UNLOCKED

Jan 1 9:50-11:20 Sally W. library

Jan 1 10:05-10:15 Dale Tutkowski

11:00-11:15 Paul Hess

12:30-1:45 L. Keck Portascope finders - wrong size screw

6" Pyrascope; inside of tube dusted;

& collimated - it needed it

badly; also a set of

nylon vinyl dust covers

included. Took nut

that attaches tube to look

for wing nuts.

Jan 1 6:30-8:15 P John A. - A scope was found uncovered!  
seeing - 7 watched & photographed

TO transit & Ganymede eclipse - Red Spot

Peter Maag

ROB REISNER

Jan 20 L. Keck 10:15-11:30

Work on Portascope finders - One is done - try it

(Portascope #9)

Jan 21 Paul Bachado 11:15 AM - 11:30 AM



21 Jan Dan Kuhler 1:45 - 2:30  
 - returned 2 carousels & projector - I  
 still have all the slides  
 - changed tape message  
 - trash pick-up.  
 14:45 - 15:00 Sally W. library

January 21 Brian Marini 19:30 - 22:50 Keyholder  
 Peter Mauger 7:40  
 Dan Varma 7:40  
 ROB REISNER 7:40

Julia K. Fry 9:40 pm

JAN 22 Sank RETURNED PROJECT FOR  
 P SCOPE #3  
 7:00 Dan Kuhler - returned slides.

JAN 23 Peter Smutka - took slides & projector  
 for talk 12:50 PM.

JAN 27 Sank 19:15 - 24:45 10 minima 177 obs.

JAN 28 A. Klein 10:40 AM - 1:30 PM

Install finderscopes on Postcopes - All but 1 has a finder  
 now for the first time in alone. Where are the rest of  
 the postcopes? are there 2 missing ?? Does somebody  
 have them. Will return to do the rest later.

F&B John Arzules First Words Meeting

F. ROLDAN 19:30 - 21:00

R. Weiner 19:30 AM

P. D. Hess 19:30

Sally W. 19:40 - 21:00 (projectors  
 slides returned from Smutka)

Timothy P. Roberts 19:30

Out ~ 9:00 PMA



San Rafael  
Bil Houghton  
Maryline Houghton  
William Houghton



3/10/89 L. Keith 6:30-10:15 Obs. Tour.

Must have lost power temporarily, clocks are wrong, or flashing.  
Some water came in through exhaust fan on roof - mopped up.

3/10/89

Sally & Michalke 7:30 Observatory Sun 9:30

Peter Maaser 7:30

Bob Reiserer 7:30

R. Wenzel mid 7:30 9:00

3/11/89

Sally 11:00 - 13:00 WORK IN YARD

FOUND BACK DOOR OPEN

Mike & Jeanne Nichols - Returned projector [B+C slides + slide  
index vid out by last person] everything  
is in working order.

Ken & Sally Waraczynski 18:45 - 21:25

Tennis Room 7:45 keyholder - 10:20

3/11/89

Lana Siki 20:00

Peter Maaser 8:15

Bob Reiserer 8:15

3/12/89

Wright Mary Ann Longrey 4:30 PM

Picked up 10" finder & mounting bracket

3-13-89

Paul Barbalet - 12:00<sup>AA</sup> - 12:15<sup>PM</sup>

March 15-89

Sally W. library 10:15 - 10:50

3-17-89

Dan Kuhler - projector & slide tray

3-18-89

Returned projector & slide tray

changed tape message

MAR 18

Sally 18:45 - 2:00 4 EB min 2 RR MAX

MEMBERS NIGHT / TOOK CHARTS FOR HIPPARCOS PROJECT

Ken & Sally Waraczynski 19:10 - 20:50

MAR 25

Sally WORK W YARD

25

Schmidt Keyholder poor day 7:45 - 8:15

26

Schmidt = 7:30 9:30 (two member visitors in yard)

MAR 27

L. Keith UW-Vaukasha class 5:45 - 11:30 PM

WARM! 65°

29

L. Keith

5:55 - 9:00

COLD!



30 - 13:50  
00 - 8:55

Sally W. Library  
UW - Waukesha Class

1:00 A John Anzures - work  
11:30/11:45 L Keith UWN class - 8:00  
1:45 L Keith " " 8:40  
1:50 " " " 10:05 PM  
1:30 Ken & Sally Waraczynski 9:50  
" Virgil & Mary Ann Tangney  
1:30 Matthew McNee 8:25 PM  
1:30 R. W. W. M. D.

Paul Berchatt  
00 Jim & Dorothy Kube

Ken A -  
15 Dorothy & Jim Kube  
F. ROLDAN 20:00 - 21:11  
LARA 19:30 - 21:11

Paul D. Hess 19:30  
L. Keith 6:00 - 9:00 UWN Class

17:30 M45 OCC.  
Vernell 18:00 - 23:00

F. ROLDAN 18:30 - 22:30  
Mr & Mrs V. J. Tangney  
Paul Berchatt  
Lara Kube 19:30

John Anzures - 7:40 P - Photographed the event  
Thomas A. R. 7:40

Tom Renner 7:30 - 10:15  
Dr. W. 7:00

D. Koehler

Ken & Sally Waraczynski 1905 - 22:50

8:45 - 11:15



4/10 L. Keir 6:49 - Bored Mtg.  
 S. Wesener 6:49 -  
 Virgil J. Targrey 7:15 P 9:15 P  
 R. Wesener MD 7:15 pm  
 M. McNeel 7:25 PM - 9:20

~~Jeannine + Nick Nichols~~  
 Paul Bachard

Tom Renner

John Aug 2/2

F. ROLDAN 19:30 - 21:35

4/12 L. Keir UNW Astro Class 6:00 PM - 9:00 PM  
 Surf 20:30 - 23:45 YEBs 4 HIP STARS

4-13 Paul Bachard 12:00<sup>PM</sup> - 12:15<sup>PM</sup>  
 TOOK PORTASCOPIES #2 & #9 FOR TONIGHT  
 GRAZE.  
 GRAZE CLOUPED ON  
 Harnett 1800

4-14 Paul Bachard 3:45<sup>PM</sup> - 4:00<sup>PM</sup>  
 RETURNED #2 AND #9 PORTASCOPIES  
 TOUR L. Keir 5:00 PM UNW class 10:30 OUT  
 F. ROLDAN 18:30 - 21:55  
 B. Kueber  
 M. McNeel 7:20 PM - 9:25

4-15 John A. 4:15 - 4:30  
 L. Keir 6:15 - UNW class  
 R. Wesener MD 7:30 pm - 11 pm  
 Sally W. 19:50 - 22:00 library VYCMa 8?  
 Surf 23:00 - 1:00 ARTHUR - 8 HIP STARS  
 23:30 - 1:00

4-16 F. ROLDAN 13:40 - 15:15 INSTALLED ONE BIRD HOUSE



1989

- 20:15-21:15 Sally W. went through the motions with B scope  
19 L. Keith 6:05-9:30 UWN Class
- 22 F. ROLDAN 18:00-19:00 MEASUREMENTS & REPAIRS  
2 J. TOLLER 19:00
- J. MILNER 19:09  
L. Keith 7:10 pm  
J. Wesener "
- 2 Jim & Dorothy Kube 20:48  
3 ~~Sam~~ 20:30-23:45 3 ED-1 RR - 14 HIPPS  
Heath 20-23 STARS
- 9:45-11:15 Sally W. library, yard  
Clean Chart prima 12:00-12:30  
14:20-15:30  
ROLDAN 14:20-18:15 INSTALL BIRD HOUSE #2  
GENERAL REPAIR & CLEANING  
F. ROLDAN 18:15-23:10 1st WED. OBS MEETING  
Wesener 18:23  
R. Wesener 19:20 H  
Lana Silk 20:00-23:15  
Dorothy & Jim Kube 20:00-23:00  
Carl & Gene Whitman 2:07  
F. ROLDAN } 13:00-22:50 CESA WORKSHOP  
K. KARANS. }
- F. ROLDAN 19:30-21:30 KEYHOLDER  
F. ROLDAN 20:00-23:10 REG. OCCULTATIONS  
Lana Silk 20:25-23:10 "  
Sam 20:15-23:50 3 EDs 20 HIPPS STARS  
Heath 21:30-23:45
- 2 L. Keith 6:12-9:15 TOUR  
J. Wesener " "
- F. ROLDAN 18:20-21:25  
B. Kueber 6:30-9:30
- 13 ~~Sam~~ Roofing MAT. FOR 'A'  
F. ROLDAN 13:15-23:00 NATIONAL Astron.  
Day Public Open  
USE



May 13 cont

R. Wilson 13:30 - 22:35

Jim Toeller 14:00

Tom Milner

Sally - J. Michalke 15:00 - 16:15  
Luca Alverus

Gregg, Monica, & Ashlee Cieslak 19:00 / 22:56

Julie K. Fry 15:00

M. McNeel 7:25 PM - 10:08

Deborah J. Frey

Sam Kuehner 7:00 - 11:00

Brian Hamner

Deborah & Jim Kube 20:30 - 22:00

John Carpenter

TIM ROBERTS

5-15 2132 J. Toeller PUT AIR IN  
MOWER OIL (except for gas) MOWER. T. RES 14  
PUT AIR IN WATER TANK.  
4:00

5-15 Karen Wesner Brad May 7:15 - 9:20

Lee Keith " " "

Jeanine & Nick Nichols

R. Wilson " 19:25 - 21:15

F. ROLDAN " 19:25 - 21:30

M. McNeel 7:30 - 9:20 PM

Paul Bachert 7:30

Sally - J. Michalke

John Carpenter

Sam Kuehner

5-16 Paul Bachert 9:30 AM - 11:00 AM

5-17 M. McNeel 6:20 PM 'Lawn work 9:4

4418 Jeff 8:45 - 16:45 WORK

14:00 - 16:00 Sally W.

-20 F. ROLDAN 10:00 - 15:45 25 IN. TEL DOME



89

5-20 Jim A. Keyholder 8:30 PM - 11:00 PM  
NED GUYETTE 9:15 - 9:30

5-20 - ~~Chad Andrus~~ 9:30 am - 11:15 pm  
F. ROLDAN 16:00 - DROPPED OPEN HOUSE PHOTOS

San Kuebler - returned projectors  
1:30 p.m.

5-20 7:30 - 17:40 'A' - ROOF  
Tom Schmitt 9:30 - 5:30

Manire 10:00 am - 5:45

Jim A 11:45 AM - 4:30 P

San Kuebler  
8:15 - 5:00

26 Sally W. 20:30 - 24:00

ena Lick 20:45 - 0:00

Chad Andrus 9:15 - 12:00

5-20 0:30 - 4:45 5 EB'S 20 HIP STARS

5-20 12:30 - 14:45 FINISH 'A' ROOF

Dec CIRCLE ON B SCOPE OFF

Ken & Sally W. 2050 - 2445

5-20 20:50 - 24:45 - 17 HIP STARS

CAUTION B SCOPE DEC CIRCLE

31 F. ROLDAN 17:45 - 19:20 INTERVIEW, MELISA ANDERSEN  
COMMUNITY NEWSPAPERS

5-20 8:00 - 11:00 MAINTENANCE

5-20 21:30 - 3:45 9 EB MIN 12 HIP STARS

Jeff Annis 10:30 - 12:00

Lee Baggish " " w/ Jeff Annis

5-20 9:00 - 15:00 FLASH 'A' DOME

6 Paul Bachardt Took #2 PORT-A-SCOPE

5 Matt McNeely 4:40 PM Cam work 7:40 PM

Ken Lick pick up camera 20:20 - 20:21

7 F. ROLDAN 18:00 - 22:10 FIRST WED. MEET.

took "B" SW FINDER AIR



1989

1st Wed

345

June 7

18:30-23:00 Sally W. gard, 1st Wed.

Airgl + Mary Ann Torrey  
Kathy Bender

R. Wiesen 19:30 H

John A.  
Duke H. Fry

19:00

Jim Goeller - 20:10

Tom M. Luer 20:10

MICHA WOLKOMR

20:20 Jim Mayer

Sally W.  
Peter Maeger  
Bob Reisinger

1ST WED, VSO TRAINING

JUN 10

9:00-16:30 MAINTENANCE

M. McGeef 9:50<sup>am</sup> - 12:00 PM lawn work

Dan Kuebler 9:20

Tom M. Luer 9:20

Jim Goeller 9:20

F. ROLDAN 9:20 - 19:00 REPAIRS

20:30-23:55 Sally W.

Peter Maeger  
Sally W. 23:00 - 4:30

19 HIPP STARS

DUKE OVER 1 1/2 HRS LATE, SA

Jan 12 - 4:30-5:00 FIRE DEPT. INSPECTION

D. Kuebler

Sally W.

D. Kuebler

19:15-21:30

J. Reich + R. Wiesen.

John A.

Tom Remer

M. McGeef 9-28

R. Wiesen

Paul Bachant

Brian Hanire

Jamie + Nick Nichols



14:30-16:15 Sally W. library  
Sally W. 7:45-13:30 WORK ON DOME  
ROLAND, F. 08:50-14:30 REPAIRS & 26" DOME  
MILNER, T. 9:00  
TOELLER, J. 9:00

McNeely M. - 9:30 AM - 12:25 PM lawn work  
Nightingale Mary Ann Langrey 6:PM 6:20 PM  
Sally W. SCRP RENOVA

John J. 9:00 PM - 10:00 Guest Tow  
Raymond Dague 425 Glenwood Ave. Syracuse  
New York (Syracuse Astronomical Society)

Tom Miller 8:50 -  
JIM Oeller 8:50 - 3:20  
F. ROLDAN 9:00 - 11:25 } REPAIRS  
Sally W. 9:10 14:45 WORK ON 2 DOME

Sally W. 9:45-12:15

and Monica Cieslak 8:40 - 11:45  
WOLKMER 8:40

TROSS 2:00 - 3:00 PM IDLER ARMS TO DEE DRIVE 26"  
M. McNeely 12:40 PM lawn work 1-1 PM  
M. McNeely 11:20 AM lawn work 3:00 PM

Sally W. 9:15-13:00 yard - visit by Robin & Henry Islo

Sally W. 21:20-4:15 10 E0 MIN - 29 HIPPOS STARS

Tom Schmitt → 21:20 → 00:15

M. McNeely 8:40 AM lawn work 12:10 PM

1 F. ROLDAN 0900-16:00 26" TEL - SLIT.

T. MILNER 0905-1600

J. TOELLER 0905-1600

Sally W. 0905-16:15

F. ROLDAN 20:20-01:30 KEY HOLDER

Ken & Sally Warynski 20:20-00:45

Wally Warynski 9:30 PM 1-15



1989

SATURN OCC.

347

JULY 02

T. Ross 8:45-

Suff 21:55 - 5:15

L. Appel 10:00 (22:00)

Gregg and Monica Cieslak 10:30 - 4:42

B. Weizen 10:45 pm 4:45 am

John A. 10:45 pm 4:30 am

John A. 10:45 p

John A. 11:00 pm

Paul Bachant 11:00 pm 4:4

Paul Bachant 4:30 am gone

Scott Laskowski

JUL 3

Suff 9:30 - 15:00 WORK ON 2 DOME

T. MILNER 9:00

J. FOELLER 9:00

F. ROLDAN 10:20

F. ROLDAN 21:45

TOOK PICTURES #9  
HAS DISPLAY - NEW COME  
RETURNED SCOPE #9  
HAS DISPLAY

JULY

Suff 2:00 - 23:45 17 HPP. ST...

John A 9:00 p - 10:00 p

JULY 5

TOELLER 7 pm.

1ST WFE

F. ROLDAN 19:20 - 00:30

N. GUYETTE 19:20

Ken &amp; Sally Waraczynski 19:20 22:20

Suff 19:00 - 22:00

B. Weizen MD 19:25 - 22:00

John A

Paul Bachant

Carl B. Whitman 19:32

Gregg + Ashlee Cieslak 20:00 - 21:00

Scott Laskowski

JULY 6

FRANK ROLDAN 19:30 - 23:15

JIM TOELLER 19:30 - 23:15

TOUR FOR  
DAVE DE RERMORE  
WAKESHA H.S.

JULY 7

M. McNeely 8:30 AM - 11:45 AM

Lamp  
with



F. ROLDAN 07:40 - 13:00 26" TEL - DOME  
 S. J. 8:00 - 14:00 "  
 J. TOLLER 07:50 - 13:00 "  
 N. Guyette 09:20 - 13:00 "  
 Ken & Sally Waraczynski ~~2020~~ 1920 - 2140  
 Chris & Kathy Weiss 2130

TRoss 9:55 - 11:10 pm keyholder Cloudy  
 S. J. 19:00 - 2110 Board Meeting  
 T. Renner 7:15 - 8:45 "  
 Karen Wesener 7:15 - 9:10 PM "  
 Lee Keith "  
 R. Weenandt 7:15 pm - 9 pm  
 P. Switzer 7:15 pm  
 Nick & Jannine Nichols 7:20 pm  
 Paul Bachard 7:20 PM  
 Brian Garner - 7:35 - 9:15  
 M. McWeef 7:35 - 9:15  
 D. Kuehler  
 John A 7:45 - 9:15  
 John A 8:15 - 8:20 Picked up <sup>a few</sup> member app's

J. TOLLER 10:41 - 1204  
 A. Feick 6:30 - 8:45 cleaning party  
 J. Vesener " 8:45  
 Ken & Sally Waraczynski 6:50 - 8:45  
 F. ROLDAN 18:30 - 20:45  
 Dan Kuehler 6:30 - 9:00

B Matthew McWeef 10:00 AM - 1:30 PM lawn work  
 Dan Kuehler 4:55 - 5:10  
 Nigel Tongray Open House #1  
 Karen Wesener 7:15 - 10:45  
 Barb P. own P. adle Time



Julie K Frey - brought some guests from  
the Rehagade Time Lords of UWM  
Margaret & David Catherine Warner Open House

Deborah J. Frey 3490  
Lloyd Brown

R. Wessner MD 7:30 pm 11:05 pm  
F. Roldan 19:10 -

M. McNeef 7:45 PM - 11:00 PM

Greg Deibel 7:45 PM

Ken & Sally Waraczynski 1945-23:30

L. Leil 7:30-10:45

J. Wessner " "

Jim & Dorothy Kube 19:45 - 23:15

~~Paul & Mary Ann~~ 7:00 PM - 11:45 PM

Peter Maager 7:45

Rob REISNER 7:45

Jim Treviranus & family

Dave Blunien

Timothy Roberts & family 1920

John Lytton 9:00-11:00 P

Jim TOELLER 7:14 - 11:25 (19:14-23:25)

Tom MILNER 7:14 - 11:25 " "

Greg Cieslak 20:45 - 23:15

Ray Wendt 20:15 - 23:30

Harry Whelan

7-15 WORK PART 1

J. TOELLER - T. MILNER 7:59 - 11:20

NED Guyotie 9:00 - 11:20

7-22 Paul Badger 1:30 PM TOOK #5 BRT-A-SOBS  
Tom Schmitt 8:30 11:00  
Anna Selt 8:30 - 11:00

7-26 M. McNeef 8:50 AM lawn work - 12:35 PM  
F. Roldan 18:45 - 20:45 } CLEAN FOR OH &  
San Kuehner } SLIDES  
TOOK FIRE EXTINGUISHER  
FOR INSPECTION



1989

July 28 11:50 - 3:00 Sally W. library, garden  
 18:50 - F. ROLDAN PUBLIC OPEN HOUSE #2  
 M. McNeely 7:20 PM - 10:15

18:00 - Ken-Sally W. 2240  
 19:20 R. Weir and out @ 23:00

M. A. Targony (V. J.)  
 David Catherine  
 Margaret Warner

19:30 TOMLINER 10:15

JIM JOELLER 10:15

me #103 REISENER  
 Lea Leith

19:50 JIM & DOROTHY KUBE 22:53

Chad Christ 7:30 - 11:30

Tana Alk 7:30

Julie K. Fry 8:15

Gregg Cieslak & Ashlee 20:37 - 22:30

Deborah J. Fry  
 Peter Gager

OUT AT 1:15 31  
 HIPPOKOS STARS

Harry T. Whelan

Sam Kuehler  
 Penny B. W. Helan

Arad Whelan @

1:10 PM M. McNeely "Picnic" 8:20

1:10 PM Tom Gill "

1:45 pm Dick Weir "

3:00 Brian Ganiere

Bobbi Ganiere

Linda Hense

307 Tom Miller

Julie K. Fry

Deborah J. Fry

Jim & Dorothy Kube

Chad Christ 2:30 PM 9:15 AM

14.15



7/29 Scott Lastowski 2:30 - 12:45

7/29 ~~Mike~~ ~~Don~~ ~~Rollan~~ - Rockford Amateur Astronomers

7/29 Barry Beaman - Rockford Amateur Astronomers

7/29 Mike Stauffer - RAA

7/29 Paul A. Semas - (RAA)

7/29 Donna Hinton (RAA)

7/29 Sharon A. Stauffer - Rockford Amateur Astronomers

7/29 Art Brown + son RAA

7/29 Gary Soper + family RAA

7-29 Pete Minnici (RAA)

7-29 Carl Beaman RAA

~~Frank~~  
F. Rollan 17:00 - 22:30

Ken & Sally Worezyski 15:00 - 00:05

AUG 1 ~~Frank~~ 20:45 - 24:00 1 EB MIN

33 HIPPARCOS STARS

AUG 2 ~~Frank~~ 18:45 - 22:00 1ST WED

John A

Ken & Sally W. 19:30 21:00

Scott Lastowski

Mike Wolkmar

Lana Silke

FRANK ROLDAN 19:00 - 01:15

AUG 5 ~~Frank~~ 8:30 - 11:00 WORK ON DOME

~~Frank~~ 23:00 - 5:00 8 EB MINIMA

2 RR LYR MAXIMA 42 HIPPARCOS STARS

6 Aug Sam Kueher 1:30 - 2:00 p.m.

changed tape message

\* \* took all slides : slide index \* \*

Aug 8 M. McNeel 12-20 PM lawn work 2:40<sup>PM</sup>

Aug. 9 2-3:30 Sally W. library, yard - released young flicker from  
"furnace room."

Aug. 10 Sally W. 18:55 - 22:55 2 std. observations,



352  
1989  
UG 10

Sun 20:15-1:30  
POCC., 3 FB MIN, 13 HIPCOS STARS

OPEN HOUSE  
to 4  
a

#3 Paul Barlow 12:15<sup>PM</sup> - 12:30<sup>PM</sup>  
RETURNED #2 PORT-A-SCOPE

Sally & Ken Wernick 19:15-22:15 4/2 4/6  
R L Keen MD 19:20 23:00 4/4 50  
F. ROLDAN 19:10 -

Karen Warner 19:25  
J TOEVLER 19:45 - 22:30  
~~Chad~~ 7:15<sup>pm</sup> - 11:45<sup>pm</sup>

L. Leish 7:30 PM  
M. McNeel 8:30 - 10:30  
Harry Whelan  
Dorothy & Jim Kube 20:00 - 22:00  
Larson 20:00

Dick Olson 20:00 - 22:00  
Carl L. Whitman 20:15  
Brian Caniere 21:20 - 23:00

John A.  
R. D. Hess  
Gordon M. 19:45 - 22:30  
Noel Whelan NW  
Sandy van Maasticht

High & Darlene Berglund  
Sun 11:30

AUG 12

Sun 8:00 - 23:00  
J. Leish 9:10  
F. ROLDAN 10:00 - 23:00

} "Z"  
SCOPE

7:10 John  
R Keen 19:15 22:15  
7:00 KED GUYETTE



AUG 14 *Sniff* 19:00 - 21:30 - } BOARD  
 Karen Wessner + Lee Keith 19:00 } MEETING  
 Tom Renner  
 R. L. Nielsen 19:15 21:25  
 M. McDeely 7:20 PM - 9:05 PM  
 F. ROLDAN 19:25 - 21:10  
 Jeanne + Nick Nichol 7:25  
 Brian Hamer 7:40  
 John A. 7:35  
 Dan Leeher

Aug. 16 10:15 - 11:30 Sally W. garden, library, copied occ. list  
**LUNAR ECLIPSE**  
*Sniff* 17:30 - 0:35  
 Pfannerstill 6:45 PM - 12:30 AM  
 Ken & Sally Waraczynski 6:20 PM - 00:15  
 T. TOLLETT  
 F. ROLDAN 19:25 - 23:10  
 John A. 7:35  
 Chad Andrist 7:30 PM - 12:15 AM  
 M. & Mrs. V. J. Tanguay  
 M. M. Warner - Dave - Cal Kevin  
 Brian Hamer 23:25 - 23:10  
 Health 18:30 -

Deborah J. Frey  
 Dan Leeher - 7:30 - 12:00  
 AUG 18 *Sniff* 19:30 - 2:00  
**FOUND DOOR TO NEW BLDG OPEN AND  
 HEATER TURNED ON**

MICROMETER DATA ON VESTA - SAO 185928 event  
 3 EB MINIMA  
 AUG 19 J. TOLLETT 8:52 - 13:12 1/12 COT  
 T. M. L. ETT 8:53 13:12 1/12 COT  
 F. ROLDAN 09:00 -  
 Sally W. 9:50 - 15:15  
 Tom Berger 10:00 22:00  
*Sniff* 10:30 - 22:00 WORK



1989

0 *Surf* 11:00 - 1:00 2 DOME

4 M. McNeely 3:50 PM lawn work 6:45 P  
Paul Bachatt 9:00 AM - 11:15 PM

5 F. ROLDAN 18:50 - 23:00 OPEN HOUSE # 4

Chad Andriat 7:00 PM 4451  
Karen Wessner 7:00 PM - 11:30 4668  
R. Stresen 7:10

& Sally Warynski 7:10 10:40

McNeely 7:30 - 10:05 PM

L. Leik 7:30 - 11:30

Deborah J. Frey 8:30

ally Jo M. M. 8:30 - 10:40

San Kaeher 7:45

ter Maager 9:30

REISENER 9:30

A. Joell 7:30

6 *Surf* 8:00 - 16:00 - WORK ON DOME

F. ROLDAN 09:10 - 17:00 - "Z" DOME, "B" ELECTRIC

7 M. McNeely 10:45 AM 12:25 PM work on slide show

7 Paul Bachatt 7:45 PM - 11:30 PM

8 7:30 San Kaeher - took slide proj.  
back on 8-30-89

20 9:15 - 9:30 Sally W.

31 7:00 San Kaeher - returned proj.

12 *Surf* 8:30 - 17:15 DOME WORK

F. ROLDAN 09:15 - 17:15 "Z" DOME

Paul Bachatt 8:00 PM - 11:30 KEYHOLDER

R. REISENER 8:00 - 11:30

P. MAAGER 8:00 - 11:29.5



1989

Sept 2

Sun 13:45 - 5:45 9 EB MW.

26 HIPPARCOS STARS, COMET BRORSEN - 1200 AM seeing very good

Sept 5

8:15 - 10:00 Sally W. finished driveway reclamation, slides

4:00 PM - 6:10 PM M. McNelly lawn work

Sept 6

J. Toelch 7:13 852

J. M. L. N. E. R. 7:13

W. Burner 7:18

R. Wiesen 7:15 pm.

Scott Laskowski 7:45

Sandra Liff 8:00 - 9:30

Paul B. G. H. A. 8:00 -

Sun

Kim &amp; Sally W. W. W. W. 7:30 - 9:20

F. Roldan 19:30 - 21:30

Sept 9

Sun 9:00 - 12:00

Paul B. G. H. A. 9:30 AM -

WORK ON P SCOPES

Gregory &amp; Monica Cieslak 7:30 pm. - 8:30 Keyholder

Rained out:

9-10-89

F. Roldan 20:30 - 21:30

OCCULTATION

9/11

T. Ross 2:35 - 4:30 Am 10 cm timings JUPITER

SEB VERY FAINT

Seeing FAIR - GOOD

J. Zick - X. Wiesen 7:00 - 9:14 Board MTC

F. Roldan 19:15 -

M. McNelly 7:20 PM - 9:20 PM

Hick &amp; Janine 2 kids

John C. G. T. A. R.

J. W. W. W. W.

Paul B. G. H. A.

Briana Danvers

Sun



1989

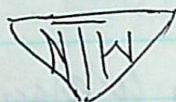
pt. 12

10:10-12:00 Sally W. library, yard work - changed  
light bulb in parking lot

Sept. 15 5:00 PM - 6:30 PM M. McNees lawn work  
6:50 PM - 10:30 PM Karen Wesener + Lee Keith Open House  
F. ROLDAN 19:00 -  
R. Wesener 19:00 22:30

Kent Sally Woraczynski 19:20  
Matthew McNees 7:40 PM - 10:30  
Ronald Kunicki 7:40 PM  
Sharon Milner 19:43  
James Joeller 19:43  
Harry Whelan 19:43

Noel T. Whelan



Perry Whelan

4816  
4620  
196  
Jim + Dorothy Kube 19:43  
John + Della Fry 8:00 PM  
Deborah Fry

Gregg + Monica Cieslak 8:40 pm - 11:40

John Kyusick

Sam Keeheer 7:30

Wanda + Tom Bern 7:30 - 11 PM.

Sept 16

F. ROLDAN 09:00 - 15:20

"A" & "Z" DOMES

J. MILNER 09:20

J. JOELLER 09:20

B. Ganiere 11:00 - 3:10

T-Bern 10:00 } 6:00 PM Dist A

W-Bayer 10:30

Sgt 12:30 - 18:00 WORK



1989  
Sept 16

357

Sun 22:00 - 3:00

MICROMETER  
CALIBRATION

TRuss 11:30 - 3:00 Secing POOR

Sept 17 Manire 18:00 - 18:15

Sept 18 TRuss 1:50 - 4:00 am 3 cm TRANSITS - Jup Secing POOR

6:08 - 8:49 L. Kirk UWW class

Sun 19:30 - 23:5 22 HIPPARCOS STARS

John A 9:40P - 11:00 Zenithal Aurora

Sept 20 Sun 19:20 - 23:30 3 EB MIN 1 RR LYRA  
33 HIPPARCOS STARS

Sept. 22 11:00 - 12:30 Sally W. library, housekeeping

TRuss 3:45 STRIPPER BOLTS provided

GRN MEETING

Sun 19:00 - 21:00

R. Wesen 1920

John J. Ing 1930

Carl B. Whitman 1934

Lee Kuhl & Karen Wesen

Tom Gill 19:20

John A. J. Tolos

Ken & Sally W. W. W. W. 1955 2230

J. T. Allen

Scott Sackowich

M. McNeely

~~Chad Anderson~~

Tom Milner - 20:00

F. Roldan 19:30 -

AMP, SPKR & MICS

Sam Kaeber

Sally J. M. also

Ray W. W. 19:30 - 22:00

John Renner

Jim & Dorothy Kube 20:00 2230



9

44

Surf 8:00 - 19:00  
 Jim Joeller 8:30 -  
 Tom MILNER 8:31  
 Paul Badart 10:00 - 11:30  
 WORK ON P SCOPES, 'C' SCOPE,  
 AND NEW DOME  
 Martin 19:30  
 Mike Johnson 8:00 - 10:00  
 Steve Johnson 8:00 - 10:00  
 Brad Zelling 8:00 - 10:00  
 Peter Mauger 8:00 - 10  
 Rob Riesner 8:00 - 10:00  
 541-9412  
 Thomas Leardi 8:00 - 10

TRoss 2:45 - 4:05 am  
 Trans 5 Seeing 3-6 8cm TRANSITS Jup  
 Surf 12:00 - 17:00 PROBLEM w/  
 SLIT DRIVE ON NEW DOME  
 Surf 20:30 - 3:00 9 EB MINIMA  
 33 HIPPARCOS STARS

TRoss 2:10 - 2:50 am Seeing 2 TRANS 5  
 L. Keith UWN Class 5:15 pm - 9:31 pm  
 Surf 18:45 - 19:15 NEW DOME  
 F. ROLDAN 21:15 - 01:45 GEN. OBSERVING.

TRoss 2:55 - 3:55 Seeing 2-4 TRANS 5  
 2cm TRANSIT Timings Jup.  
 M. McNelly 4:00 PM - 6:00 PM lawn work  
 J TOELLER 6:06 8:37  
 Tom Schmidt 7:00 → 10:00  
 F. ROLDAN 8:37

22 TRoss 2:55 - 4:20 am 16cm TRANSIT TIMINGS  
 TRANS 5 Jup.  
 Seeing 6-9  
 INTRKATE TOON DETAIL IN N<sup>W</sup> - E ZONE



9-27 L. Keith 6:00-8:10 Boy Scout town  
F. ROLDAN 19:45-00:45

GEN OBS.

8-28-89 Tross 2:50-3:35am T=5 S=2-3 windy

SP 2889

Sybil 19:20-23:00

Paul Borchardt } - 7:50<sup>PM</sup> - 9:00<sup>PM</sup>

8 HIPPARCOS STARS, 1 EB MINIMUM, 1 RR MAX  
4 EB'S AT MINIMUM WHEN CLOUDED OUT

9-29 Tross 2:55-3:10 T=4.5 S=2 windy

OPEN HOUSE

5099

(4900)

F. ROLDAN 19:00 =

~~Chad Anderson~~ 7:00<sup>PM</sup> - 11:00<sup>PM</sup>

Richard G. Nelson 2000-2200

Matthew McDeel 7:30 - 10:20

~~Rana & Sally Sonnenberg~~ 7:30

Harry Whelan

per ry Whelan

Noel Whelan +

Julie Kirby 7:30

Kim & Sally Waraczynski 7:30 - 10:00

Scott Laskowski

J. TELLER 7:20 - 10:00

T. MILNER 7:10 - 10:00

Don Keeher - 7:15 - 10:30

Gregg Cieslak 7:00 - 10:45

9/30/89 Gregg Cieslak - 19:10 - 21:45 computer work  
Keyholder Don Keeher 7:30 - Saturn, Comet O-C-R

Mike Johnson 8:13<sup>am</sup> (mag est 8.5 in Bootes)

Don Johnson 8:13 viewed at 22:30 UT

Don Johnson 8:13 M-13, 57, 27, 71, 56,

90, 29, 39, 52

T=4.5, S=5-8

Jupiter (sans SEB!)



360

1989

OCT 01 TROSS 2:30 - 4:10 AM 12 cm TRANSITS Jup.  
 TRANS. = 5 Seeing 2-6  
 Sample 18:00 - 20:40 Return #2 PSCOPE  
 19 HIPPARCOS STARS

OCT 2 5:50pm - 9:30 L. Keel UMW class

OCT 03 TROSS 2:55 - 3:30 AM 10 cm TRANSIT TIMING (Jup)  
 T=5 S=2-4 WINDY  
 Sample 18:45 - 23:30  
 7 EB MINIMA, 22 HIPPARCOS STARS

OCT TROSS 2:55 - 3:45 am 6 cm TRANSIT TIMINGS (Jup)  
 T=5 S=2-5

10/4/89 First Wed.  
 1920 R. Meade  
 Sample 19:00 - 21:00  
 Scott Lockowski

Sally W. 19:30 - 20:30  
 Wanda Berner 9:30  
 T. MILNER  
 J. TOELLER

John A.  
 R. Smith  
 Carl E. Whitman  
 Brian Sallie

10-5-89 F. ROLDAN 16:45 - 21:10 FILMED SEGMENT FOR  
 CH10 PBS "OUTDOOR WISCONSIN"

10-6-89 L. Keel 5:30 - 9:05 pm "Saturn through a Telescope" class  
 16 kids

OCT 07 TROSS 2:55 - 4:00 am 2 cm TRANSITS (Jup)  
 T=5 S=3-4

7:07 - 9:05 L. Keel Keyholder viewed from 0:15 - 1:00  
 7:07 - 9:45 D. Koehler - Comet O-L-R. mag est. 8.0  
 7:21 - 9:05 Brian Sallie goal control condensation



Oct 07 cont. R. Jones 7:48 → 7:51  
Brought out books & Mag. for Donation  
Jung Gals 7:05 - 8:50

OCT 08 Sph 2:00 - 6:30 2EB MINIMA 3RA MAXIMA  
23 HIPPARCOS STARS

TROSS 2:30 - 5:00 am 12 cm TRANSITS (Jup) T5 S4-7  
John A. 3:15A - 5:10 am photos of Jupiter

OCT 09 TROSS 1:10 - 2:40 am 16 cm TRANSITS (Jup)  
T4 → 6 S5-7 Clouded out 2:06 am

BOARD MTG.  
Sph 19:00 -

Karen Warner & Leo Keitz 19:10 - 9:50

M. McNees 7:25 - 9:35

R. Wilson 19:20 - 22:00

F. ROLDAN 19:25 - 21:50

Tom Renner 19:25 - 22:00

John A.

Janine 7:35 - 9:45

Paul Bacha 7:30 - 9:50

OCT 10 TROSS 3:05 - 3:35 am 1 cm TRANSIT (Jup) T=5 S=3 windy  
F. ROLDAN 20:00 - 23:00 OCCULTATIONS  
Weather 21:45 - Out Return Box & Picked  
up 3" Ref.

OCT 11 TROSS 2:55 - 4:00 am 5 cm TRANSITS (Jup) T4-5 S3-5

OCT 12 TROSS 2:50 - 3:35 am 2 cm TRANSITS (Jup) T4 S2-3 windy

OCT 13 TROSS 3:05 - 4:10 am 7 cm TRANSITS (Jup) T5 S2-5

Paul Bacha 5:00 AM - 6:20 AM  
Alex 6:35 - OPEN HOUSE

D. Koehler 6:50 -

F. ROLDAN 19:11 - 20:15

M. McNees 7:25 PM, Paul D. Herr  
10:00



13<sup>th</sup> 1989 cont Open House  
Recess in D 19:15 21:45

2 31M JOEYER - 7:30 - 10:00

TOM MILNER 7:30 - 10:00

Julie Xing 7:45

Jim & Dorothy Kuber 19:45 out 22:15

Her Mace MS 744 Cuneiform Tablets

Scott Laskowski

John Cezal

Tanner Ross 2:00 - 4:45 am

18 CM TRANSITS (JUP) T=2-3 S3-8 High Clouds

Three dark areas VISIBLE WITHIN G.R.S.

TWO STB<sup>WHITE</sup> (OVALS) OBSERVED

John A.

Heath 6:00 - Pick up Chart Pine  
L. Kent 6:00 - 8:30 UWW Class

Sam Kuehler - 7:15 - 7:30

took slide projector, lens, slide tray  
for dinner meeting. Changed tape message.

Gregg Cieslak 12:00 noon - 5:30

UW-Platteville Tour & class on Computer control  
26" drive work

R. ROLDAN 19:00 - 22:30 TOOK #10 PORTASCOPE

Scott Laskowski

Wanda & Tom Berner - 19:05

Sam Kuehler

Jim Parrott, C.A.S.

Paula Leach

David M. Irvine, Assistant Nurse Recorder, A.L.P.A.

George McCombs, Naville Museum Asto En, Green Bay.

Ken Warr 19:25



10/21/89 (cont)

303

Jimm & Dorothy Kube 19:33 out 22:30  
John & Zadra 19:34  
Dr. Wilcox MD 19:34  
Bon Hout 19:07  
Julie & Fay 19:30  
Deborah & Jeff  
Paul Barhart  
Judy Pope  
Nancy Meryn  
John Casteln  
~~Ray Anderson~~ 7:20-  
Sufi -  
Thom  
Ann Parker 19:00  
Hemden 20:00

OCT 22 TROSS 1:35 - 4:50 16cm TRANSITS (Jup) Seeing 2-6  
F. ROLDAN 14:00 - 14:40 RETURNED #10 PORTASCOPE  
Sufi 21:00 - 22:00 OCCULTATION OF  
SAD 147658 BY 521 BRIXIA  
NO CONTACTS OBSERVED

OCT 23 TROSS 12:50 - 2:15 am 10cm TRANSITS (Jup) Seeing 2-4 T2-3  
13:30 - 15:00 Sally W. Library  
Paul Barhart 3:30 PM - 4:00 PM RETURNED  
PORTASCOPIES #3 AND #6  
L. Kehl 5:51 pm - 9:05 UWW Class  
Sufi 19:20 - 23:30 47 HIPPARCOS STARS  
2 EB MINIMA SAW 15.0 MAG W/A SCOPE

OCT 24 TRM 2:55 - 4:45 am 5cm TRANSITS (Jup) 525 T2-3  
F. ROLDAN 18:50 - 21:00 TELEPHONE  
TOUR LOCK MISSING  
L. Kehl 7:00  
Hemden Returned Port Scope #7 21:45

OCT 25 TROSS 2:55 - 4:30 am 13cm TRANSITS (Jup)  
T4 S2-6 MAJOR DISTURBANCE OF NEBS VISIBLE.  
HEAVY GROUND FOG



OCT 26 1989 TROSS 2:55 - 4:30 am 6 cm TRANSITS (Jup)  
T4 S3-6 2 Good Sized proj of NEB<sub>W</sub> visible

OCT 27 TROSS 2:50 - 4:45 am 17 cm TRANSITS (Jup)

T4 S2-6 Two STB OVALS OBSERVED

Paul Berchault 5:10 AM - 6:45 AM

OCT 28 F. ROLDAN 18:40 - 21:10 KEY HOLDER

NO VISITORS - INSTALLING TEMP. PHONO '2' B.

TROSS 12:10 - 1:10 am 1 cm TRANSIT (Jup) S2-3 T0-2

Sally W. 9:10 - 9:20 took slide Index

L. Head 5:50 - 8:30 UMW Class

S. Waraczynski 9:15 - 11:00 yard and visit by

Chris Weichman (Tiger Club, Cleveland Heights school)

OCT. Don Faerber - tour (MSOE)  
7 - 9:30

NOV TROSS 2:55 - 4:10 am 7 cm TRANSITS (Jup) S2-6  
Sally 18:30 - 20:50 T2-4  
FIRST WED

Scott Laskowski

Tailler

Ken & Sally Waraczynski 1930 - 20145

NOV 5 TROSS 2:55 - 4:50 am 23 cm TRANSITS (Jup)

T5 S3-6

NOV 01 Sally WORK ON ORAZEL CABLE  
NOV 05 Sally PICK UP SPARE RECORDER.

NOV 10 TROSS 2:55 - 4:40 am WINDY  
19 cm TRANSITS (Jup) T-5 S3-7

NOV 11 TROSS 10:35 pm - 3:30 am S3-7 T4-5  
34 cm TRANSITS (Jup)

NOV 12 TROSS 10: - 12:10 am 1c T T(u) 1 1 2



Nov 14 F. ROLDAN 18:40 - 21:00 TOUR  
D. Keyholder 6:30 - 9:00

Nov 16 ~~Smith~~ 18:00 - 21:00 14 HIPPARCOS STARS  
2 EB MINIMA - BEST CLOUDED OUT

Nov 19 TROSS 12:30 - 1:50 am 7 cm TRANSITS (Jup) T4 S0-2

Nov 20 ~~Smith~~ 17:30 - 23:15 7 EB MINIMA  
~~Schmidt~~ 17:30 - 18:30 1 RRLYR MAX  
26 HIPPARCOS STARS

Nov 21 TROSS 2:50 - 4:00 am 16 cm TRANSITS (Jup) T5 S5-7

Nov 23 TROSS 2:50 - 4:15 am 9 cm TRANSITS (Jup) T5 S3-4

Tom Schmidt 10:10 pm ~~200~~ 200  
(Note furnace igniter; not a proton, just noting the fact.)

Nov 24 TROSS 11:10 pm - 3:30 am 20 cm TRANSITS (Jup) T5 S3-9  
Paul Bachart 2:30 AM - 5:30 AM SEEING WAS  
SUPERB STILL

Sally W. 13:10 - 13:45 library

re furnace: I pulled the reset on the side of the primary control box, flipped the switch (again), and the motor (fan?) started up. No ignition, however.

Found pothole glass loose so removed it.

Nov 25 ~~Smith~~ 14:00 - 15:00 STOP off LUMBER  
~~Smith~~ 10:30 - 14:00 WORK

Tom Burn 11:30 - 12:30 fix furnace.  
Scott Jacobowski 11:00 - 1400 WORK

Sam Kuehler - 2:30 - 2:45

changed tape message

keyholder information for G. Samalyk

F. ROLDAN - 18:50 - 00:22 KEYHOLDER FOR P. SMITKA

Nov 26 TROSS 12:20 am - 3:45 23 cm TRANSITS (Jup) T4-5  
52-5



- 7 Sally W. 12:05-12:30 <sup>removed moonwatch folder</sup> ~~removed moonwatch folder~~ from history.  
checked log for whereabouts of meteorite collection(?);  
found furnace operable - Thanks!

8 *Suz* 17:20-23:45 39 HIPPARCOS STARS  
6 EB MINIMA, 1 RRL YR MAXIMUM

29 TROSS 2:50-4:45 AM  
21 CM TRANSITS (JUP) T=5 S=4-6

S. Koehler took slide projector

3 TROSS 2:50-3:10 Seeing Very Poor - windy

10:30-10:45 Sally W. returned moonwatch folder  
Heat out again?

6:30 PM *Tom Schmidt* 9:30  
*Suz* 16:45-23:10

6 EB MINIMA 22 HIPPARCOS STARS  
RED SPOT TRANSIT S=3-4

01 TROSS 2:50-4:10 am  
8 cm TRANSITS (JUP) T=5 S2-3 windy

*Suz* 13:00-14:00 PREP FOR GRAZE

TROSS 2:40-4:30 am

17 CM TRANSITS (JUP) T5 S3-5 windy

4 Paul Bahart 5:15 PM PICKED-UP  
Scott Zakowski GRAZE TRAILER

06 TROSS 3:05-3:36 am

1 cm TRANSIT (JUP) T0-1 S5-6 windy

Paul Bahart 10:00-10:30 RETURNED  
#2 AND #10 PORTASCOPIES



Dec 6

1st Wednesday

Sally 19:20 -

R. Veen 19:20

Scott Laskowski

FRANK ROLDAN 19:50 - 22:15

Lana Silke 20 - 21:58

Paul Hess 19:50

Finis Miller 19:50 -

Dec 07 TROSS 2:55 - 4:15 am

7 cm TRANSITS (Jup)

T5 S3-5 WINDY

Dec 08 TROSS 2:50 - 4:40 am

18 cm TRANSITS (Jup) T-5 S3-6

Dec. 9 Sally W. 10:30 - 12:45 library, occ. reports.

Sally 11:30 - 15:00 WORK

Dec. 10 J. Kuehler

dropped off ladder for 20"  
looked for meteorite display met'ls.

Dec 12 TROSS 2:15 - 2:45 am 2 cm TRANSITS (Jup) T5 S2-3

Dec. 16 Sally W. 12:00 - 13:00 library research Meteorites found scattered in bottom

ROB REISNER 12:00 - 12:45 of cabinet - now with Sally W. at home

F. ROLDAN 23:00 - 23:15 DELIVERED MAGAZINES

FOR SALLY W.

DEC 22 J-T IN CONT

1990

JAN 2

Sally 16:30 - 23:45 50CCS.

7 HIPPARCOS STARS 11 EB MINIMA 1 RR MAXIMUM

Jan 03 TROSS 1:50 - 2:45 am

3 cm TRANSITS (Jup) T5 S3-2 WINDY